TOSHIBA
Storage Device Division

CD-RW/DVD-ROM DRIVE

SD-R1202
Installation Instructions
with VOB InstantCD/DVD
and
CyberLink PowerDVD™ Software

VERSION 2.0
MAY 2002

CD-RW/DVD-ROM DRIVE
Instruction Instructions

For the following Drive:

SD-R1202

TOSHIBA AMERICA INFORMATION SYSTEMS, INC.
STORAGE DEVICE DIVISION
9740 Irvine Blvd.
Irvine, CA 92618

Contents of this manual are subject to change without prior notice.

Printed in USA

Limited Warranty
Toshiba America Information Systems, Inc.
Storage Device Division
9740 Irvine Boulevard, Irvine, California 92618
1-949-583-3000

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Product	Free parts, labor
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DVD-RAM Drives	1 year

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DVD ROM

COMPACT
dISC
Recordable
ReWritable

LASER CAUTION
This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT". To use this model properly, read this Owner's Manual carefully and keep this manual for future reference. In case of any trouble with this model, please contact your nearest "Authorized Repair Center". *To prevent direct exposure to the laser beam, do not try to open the enclosure*

CAUTION!
- **REFLECTIVE OBJECTS SHOULD NOT BE PLACED IN THE DISK SLOT DUE TO POSSIBLE HAZARDOUS RADIATION EXPOSURE.**
- **USE OF CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN SPECIFIED IN THIS MANUAL MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**

Version	*Date Published*	*Revised Contents*
01	January 2002	Initial release
02	May 2002	Address/Phone Number changes

Congratulations on your purchase of a Toshiba CD-RW/DVD-ROM drive and Kit. The following information will help you in the simple installation of your new CD-RW/DVD-ROM drive.

CHECKING YOUR KIT PACKAGING

Please unpack your CD-RW/DVD-ROM kit, and assure that you have the following items:
- Toshiba CD-RW/DVD-ROM Drive
- CD-R Blank Media CD
- CD-RW Blank Media CD
- CyberLink PowerDVD™ Software CD
- VOB InstantCD/DVD Software CD
- CD-RW/DVD-ROM Installation Instructions (this manual)
- Quick Start Guide
- Mounting screws (4)
- IDE BUS cable
- DVD/CD audio cable

Additional items you may need that are not included in the kit are:
- Phillips Screwdriver
- Mounting hardware (i.e. some computer systems use mounting rails).

SYSTEM REQUIREMENTS

The CD-RW/DVD-ROM kit requires the following:
- ✔ At least 55MB of free hard disk space
- ✔ At least 32MB of RAM
- ✔ *Pentium II processor at 266MHz or higher or....
  *Celeron 300A processor or higher or....
  *K6-2 processor at 300MHz or higher
- ✔ Display card supporting DirectDraw
- ✔ 16-bit or better sound card
- ✔ Microsoft™ Windows 95 or higher
- ✔ Amplified stereo speakers

* These requirements are only required if you are using the CyberLink PowerDVD™ software for movie playback. Toshiba's CD-RW/DVD-ROM drive will work as a CD-ROM, DVD-ROM and CD-RW when using a lower speed Pentium system.
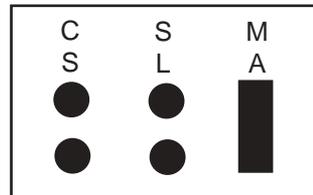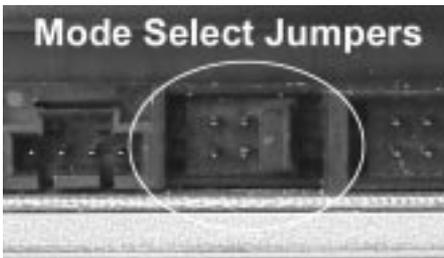
The following steps must be performed to properly install your CD-RW/DVD-ROM.

- Set drive's jumpers
- Connect audio cable
- Attach IDE BUS cable
- Connect power cable
- Mount CD-RW/DVD-ROM
- Install CyberLink PowerDVD™ software (used for viewing DVD movies)
- Install VOB InstantCD/DVD software (used for recording CDs)

SETTING JUMPERS

The mode select jumpers are six (6) straight pins located on the rear of the CD-RW/DVD-ROM. By placing a jumper on the pins, you can select the following functions:

CS: – Drive is configured using host interface signal CSEL
SL: – Configures drive as Slave
MA: – Configures drive as Master (default mode)

Mode Select Jumpers

In most installations, jumper should remain in MA (Master) position (factory default). It is recommended that you install your CD-RW/DVD-ROM only on the secondary IDE BUS. If you are installing on primary IDE BUS, your hard drive would then be the Master, and you should set your CD-RW/DVD-ROM to the Slave position (SL).
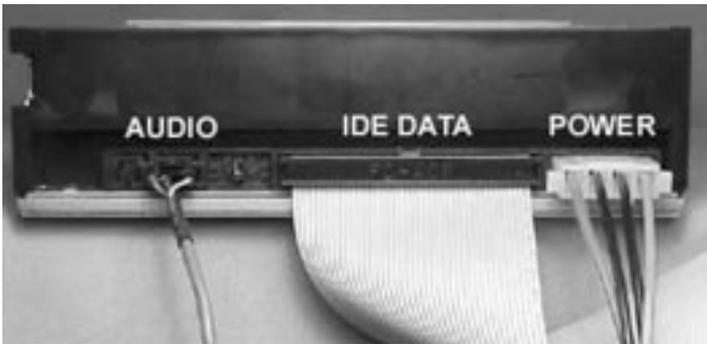
PLACING CD-RW/DVD-ROM INSIDE YOUR COMPUTER

Now that you have set your drive's jumpers, you are ready to install your CD-RW/DVD-ROM inside your computer.

☞ **IMPORTANT: Disconnect power from your computer system before beginning installation.**

1. Remove computer cover and faceplate if required (refer to your computer system's manual for removal information).

2. If the CD-RW/DVD-ROM is replacing a CD-ROM, disconnect all connectors and remove the CD-ROM presently installed in your system.

3. Your Toshiba CD-RW/DVD-ROM can be placed in any free half-height drive slot at the front of your computer. (It can be mounted horizontally or vertically.)

4. Carefully start sliding the CD-RW/DVD-ROM into the opening with the disc tray facing the front of the computer. Before you push the drive all the way in you will need to connect the IDE BUS cable, audio cable and the power cable to the back of the drive.

CONNECTING CABLES

Cable Locations on Rear of CD-RW/DVD-ROM

IDE BUS (Data) Cable **-** Most computer system have a primary and secondary IDE BUS cable already installed (an IDE BUS cable is include with your kit if your system does not have a secondary IDE BUS cable).

*If you are replacing a CD-ROM***:** connect the CD-RW/DVD-ROM drive using the BUS cable that the CD-ROM was connected to. Insure that the jumper setting of the CD-RW/DVD-ROM is the same as the CD-ROM drive you are replacing.

If the CD-RW/DVD-ROM is not replacing a CD-ROM and/or is in addition to a CD-ROM: locate the secondary IDE BUS cable in your system. If your system does not have a secondary IDE BUS cable installed, you will need to install the IDE BUS cable that was included with your kit.

> *Installing secondary IDE BUS cable:* locate the secondary IDE BUS connector on your system's motherboard (refer to your system's documentation for location). Connect one end of the IDE BUS cable to motherboard, assuring that it is keyed properly and that cable's colored edge is aligned with Pin 1.

Connect secondary IDE BUS cable to CD-RW/DVD-ROM drive, assuring that pin 1 of the cable (side with red stripe) is connected to pin 1 on the drive.

> • *If the CD-RW/DVD-ROM is the only drive connected on the secondary IDE BUS cable:* connect drive to the last set of pins on IDE BUS cable.
> • *If there is a device (i.e. CD-ROM) connected to the secondary IDE BUS cable:* connect CD-RW/DVD-ROM to the open middle connector . The CD-RW/DVD-ROM drive should then be jumpered to SL (slave) position.

If the CD-RW/DVD-ROM is to be the slave on the Primary BUS: connect the CD-RW/DVD-ROM to the open connector on the primary IDE BUS cable. *The CD-RW/ DVD-ROM* drive should be jumpered to the SL (slave) position. *Note: the primary IDE BUS cable, in most cases, will be connected to your hard drive. The hard drive will be the Master on the primary BUS.*

Power Cable **-** Inside your computer system, locate an unused power supply cable. Connect the power cable to the power socket at the back of the CD-RW/DVD-ROM. One side of the plug has chamfered edges, so the power connector fits only one way so be sure to insert the DC power plug in the correct direction. Push plug completely into the socket making sure the plug fits correctly.

Audio Cable **-** Connecting your CD-RW/DVD-ROM to your sound card allows you to play audio CDs on your computer (speakers or headphones are also needed).

If the CD-RW/DVD-ROM is in addition to a CD-ROM: If you choose to have both a CD-ROM and CD-RW/DVD-ROM installed in your system, in most circumstances, only one audio cable can be used (there are some sound cards that will allow you to have two audio connections). You must decide which device you would like to hear audio from and connect the audio cable from the sound card to the CD-ROM or CD-RW/DVD-ROM (DVD audio is transmitted through the data cable, not the audio cable).

If the CD-RW/DVD-ROM is to be the only CD-ROM device in your system:
> • *If replacing a CD-ROM that had an audio cable connection:* connect CD-RW/DVD-ROM drive to the audio cable that the CD-ROM was connected. Cable connects to the analog audio connector at the left rear of the CD-RW/ DVD-ROM (see Cable Location photo on page 3 for location).
> • *If you do not have an audio cable presently in your system:* connect the CD-RW/DVD-ROM using the audio cable that was included with this kit. Connect one end to your sound card and the other end to the analog audio connector at the left rear of the CD-RW/DVD-ROM (see Cable Location photo on page 3 for location). Refer to the instructions which came with your sound card for details on any sound-driver software required.

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COMPLETING INSTALLATION

After you have connected all the necessary cables, push the CD-RW/DVD-ROM completely into the computer's drive slot. Mount the drive per your computer's instructions using the screws included in your kit. If you are using other screws, assure that the screw length does not exceed 3±0.5mm (measured from outside surface of side or bottom of CD-RW/DVD-ROM to tip of screw). Replace the computer cover and all outer screws.

ATAPI CD/DVD Software Driver:

Toshiba's CD-RW/DVD-ROM drives do not require any unique device drivers for Windows '95/'98/2000/Me/XP/NT. After installing your drive and re-booting, your system should recognize your drive. Win '95/'98/2000/Me/XP/NT operating systems support all Toshiba ATAPI CD-RW, CD-ROM and DVD-ROM drives natively.

VOB InstantCD/DVD Software:

Before installing VOB software it is recommended you visit VOB's website to check for any software updates (http://www.vobinc.com).

To install software insert the installation CD into your newly installed drive. If "*Autorun*" is enabled on your system, the Installation window will appear automatically. If it does not appear, go to Windows Start menu, select *"Run"* and type d:\setup.exe (substitute the appropriate letter of your new drive for d:). From the Installation window select *InstantCD/DVD* and follow the installation instructions that appear on your screen. For additional information on this software, please refer to the documentation found on the VOB "*InstantCD/DVD*" CD.

InstantDisc - This easy to use software enables you to create your own CDs.

InstantBackup - Easy to use backup solution with support for CD-R(W), DVD-RAM, and DVD-R(W) drives. Includes compression, encryption, spanning and scheduled backups.

InstantCopy - Professional CD Duplication program including DAO-RAW support, easy to use profiles and On-the-Fly Data Processing.

InstantWrite - The only complete UDF packet writing software. Supports CD-R(W), DVD-RAM and DVD-R and all UDF levels up to 2.01. With easy to use format wizard and Defragmentation utility.

InstantMusic - Easy to use 16 track harddisc recording studio. Song composing made easy. Includes real-time mixer, about 1000 high quality samples and various effect filters.

InstantVideo - Creates VideoCDs- and SuperVideoCDs that can be played back in almost any DVD-Player. AVIs are automatically encoded to the correct MPEG-1 format.

CyberLink PowerDVD:

*Before installing CyberLink software it is recommended you visit CyberLink's website to check for any software updates (http://www.gocyberlink.com).

CyberLink PowerDVD™ is a high-quality, pure-software DVD player that brings high-quality movies and karaoke into your multimedia PC. You can playback high resolution DVD titles or MPEG-2 files with superb MPEG-2 video and Dolby AC-3 audio quality.

To install, insert CyberLink PowerDVD™ into your newly installed CD-RW/DVD-ROM. Go to Windows Start menu, select *"Run"* and type `d:\setup.exe` (substitute the appropriate letter of your CD-RW/DVD-ROM drive for `d:`). Follow the installation instructions on screen. For additional information on using this software, please refer to the PowerDVD™ Help file (if you have opened PowerDVD™ software, click "?").

CD-RW/DVD-ROM MEDIA

After installing the VOB and CyberLink software your system is ready to use.
Some important things to remember when using your CD-RW/DVD-ROM Drive:

- Do not insert more than one CD or DVD disc into the drive at a time.
- Do not insert anything other than a CD or DVD disc into drive.
- Use media that is the correct size and shape.
- Use media that meets write/read requirements listed in the Specifications (see page 14).

EMERGENCY EJECT

> **CAUTION!**
> The following procedure is intended only as a last resort when pressing the Eject button fails to open the CD-RW/DVD tray.
> Do not use Emergency Eject Procedure while the drive is in operation.

Inserting Bar to Eject DVD Tray

1. Turn CD-RW/DVD-ROM drive power OFF.
2. Insert a solid bar (i.e. large paper clip*) into Emergency Eject hole and push in as shown in the picture below.
3. CD-RW/DVD-ROM tray will open/eject.

This procedure cannot be repeated without cycling the drive's power. After the media is removed and the loading tray is closed, the tray will not reopen without first turning the power ON/OFF.

*   Use a bar that is less than 1.5mm in diameter. Do not insert more than 50mm in depth as this may damage the drive.

CD-RW/DVD-ROM FRONT PANEL

The photo below illustrates the following features of the SD-R1202 CD-RW/DVD-ROM front panel:

① Loading Tray   ③ Eject Button
② Busy Light   ④ Emergency Eject Hole

CD-RW/DVD-ROM BACK PANEL

The photo below illustrates the following features of the SD-R1202 CD-RW/DVD-ROMs back panel:

① Digital Audio Out Connector   ④ ATAPI Connector
② Analog Audio Out Connector   ⑤ Power Connector
③ Mode Select Jumper

SPECIFICATIONS	DVD	CD
DATA CAPACITY	2,048 Byte/Block	2,048 Byte/Block (mode 1) 2,336 Byte/Block (mode 2)
ROTATIONAL SPEED	DVD : 7,580rpm (12X - Single Layer) 5,053rpm (3.3-8X -Dual Layer) DVD-R (Ver 2), DVD-RW, DVD-Video : 2,780rpm (2-4.8X) DVD-R (Ver 1): 3,200rpm (2 - 4.8X) CD-R (Write): 3,400- 5,940rpm (12, 16X) 1,700-3,960rpm (8X CLV) High Speed CD-RW (write): 850 - 1,980 rpm (4X CLV) CD-RW (write):850 - 1,980 rpm (4XCLV)	CD-ROM, CD-R: 8,561rpm (13.8 - 40X) CD-RW: 3,281rpm (8.6 - 20X) CD-DA Transfer: 3,200rpm (12.7 - 16X) CD-DA, Video-CD: 1,200 - 2,000rpm (4 - 6X) 2,550-5,940rpm (12X CLV) 850-1,980 rpm (4X CLV) 2,125 - 4,950 (10X CLV)
SUSTAINED DATA TRANSFER RATE	DVD: 6,682-16,200KB/s DVD(dual layer): 4,432-10,800KB/s DVD-VIDEO, DVD-R, DVD-RW: 2,704-6,536KB/s CD-RW: 1,294-3,000KB/s (mode 1) 1,475-3,422KB/s (mode 2) CD: 2,588-6,000KB/s (mode 1) 2,950-6,843KB/s (mode 2)	

ACCESS TIME (Typ.)	Avg. Random Access	Avg Random Seek	Avg. Full Stroke
DVD	130ms	120ms	210ms
CD	110ms	105ms	180ms

DATA BUFFER	2,048 KByte
POWER SUPPLY	+5v, +12v
MTBF	100,000 hours
DIMENSIONS (W x H x D)	5.7" x 1.6" x 7.6" (146mm x 41.5mm x 193mm)
WEIGHT	2.03lbs (0.92kg)
MOUNTING ORIENTATION	±10° vertical / ±20° horizontal
APPLICABLE WRITE DISC	CD-DA, CD+(E)G, CD-MIDI, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video-CD), Multi-session CD (Photo-CD, CD-Extra, Portfolio)
APPLICABLE READ DISC	DVD-ROM, DVD-R, DVD-RW, CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, CD-I, CD-I Bridge (Photo-CD, Video-CD), Multi-session CD (Photo-CD, CD-Extra, CD-R, CD-RW, Portfolio), CD-R, CD-RW

TECHNICAL SUPPORT

Technical support can be obtained by calling 805/644-6350 or by sending an email to: toshibadpd@teleplan-ventura.com or visiting our website at:
http://www.sdd.toshiba.com